

Remarks

Claims 1-11 are pending, and claims 1-11 stand rejected. Applicants respectfully traverse the rejection and request allowance of claims 1-11.

Request to Withdraw Final Rejection

The Examiner made this office action final. The Applicants respectfully request that the Examiner reconsider the finality of this office action, pursuant to MPEP § 706.07(d). In the first office action dated 7/5/01, the Examiner rejected claims 1-7 under 35 USC § 102 in view of U.S. Patent number 5,394,758 (Wenger), rejected claims 8-9 under 35 USC § 103 in view of Wenger and U.S. Patent number 6,004,715 (Ollila), and rejected claims 10-11 under 35 USC § 103 in view of Wenger. The Examiner also made reference to U.S. Patent number 5,549,009 (Zaschel). In the second office action dated 1/31/02, which is the office action currently pending, the Examiner rejected claims 1-7 under 35 USC § 103 in view of U.S. Patent number 5,663,509 (Lew) and Wenger, rejected claims 8-9 under 35 USC § 103 in view of Wenger and Ollila, and rejected claims 10-11 under 35 USC § 103 in view of Lew and Wenger.

A second action shall be made final except where the Examiner introduces a new ground of rejection that is neither:

- (a) necessitated by the Applicant's amendment of the claims; nor
- (b) based on information submitted in an IDS filed under 37 CFR § 1.97(c).

(MPEP § 706.07(a))

In response to the first office action, the Applicants amended the claims, namely claim 1, to clarify the invention. The Applicants did not add any new limitations that were not explicitly stated or implied in the claims as filed and as examined for the first office action. A closer examination of the amendments to claim 1 will show that the amendments merely reword claim 1 so that claim 1 more clearly describes the invention. The Applicants ask that the Examiner review the marked-up version of amended claim 1 as provided in response to the 7/5/01 office action and see that the amendments do not add any new limitations.

As described above, the Examiner entered a new ground of rejection in the second office action. The Examiner cited a new reference (Lew) and entered a new rejection. A close review of the amendments to claim 1 will illustrate that the amendments do not add any new limitations that were not explicitly stated or implied in the claims as filed and as

examined for the first office action. If there were no new limitations, then the amendments could not necessitate a new search. Also, the Applicants did not file an IDS citing Lew.

Alternatively, a second action on the merits in any application will not be made final if it includes a rejection, on newly cited art, other than information submitted in an information disclosure statement filed under 37 CFR § 1.97(c), of any claim not amended by the applicant in spite of the fact that other claims may have been amended to require newly cited art (MPEP §706.07(a)). For this application, the Applicants did not amend claims 3 and 5, yet the Examiner entered a new ground of rejection and cited new art against these claims. The Applicants did not cite the new art in an IDS. Thus, even if the Examiner decides that the amendments to claim 1 necessitated the new search, claims 3 and 5 were not amended and this second office should not be final.

Considering the above, the finality of this second office action is not proper under MPEP § 706.07(a). The Applicants request that the Examiner remove the finality of this office action.

Traversal of § 103 Rejections

The Examiner rejected claim 1 under 35 USC § 103 in view of U.S. Patent number 5,663,509 (Lew) in further view of U.S. Patent number 5,394,758 (Wenger). Lew teaches an inertia force flowmeter comprising a pair of bow-shaped conduits (44,45), a reinforcing structure (52), a vibrator (48), differential pressure sensors (50,51), and a vibratory motion sensor (49) (FIG. 5; column 11, lines 6-55). The differential pressure sensors (50,51) are tapped into conduits (44,45) symmetrically about the center plane (FIG. 5; column 11, lines 6-55). The differential pressure sensors (50,51) generate signals representing the pressure existing in conduits (44,45) (FIG. 5; column 11, lines 6-55). The vibratory motion sensor (14) generates a signal representing the motion between the conduits (44,45) at the center plane (FIG. 5; column 11, lines 6-55).

Wegner teaches a flow meter (1) comprised of flanges (19,20), flow tubes (11,12), brace bars (32-33), a driver (16), and pickoffs (17,18) (FIGS. 1-2; column 3, line 58 to column 5, line 17). The flow tubes (11,12) are loops that have straight portions (111,112) and a curved portion (115) (FIGS. 1-2; column 3, line 66 to column 4, line 12).

In traversing the §103 rejection, the Applicants first submit that Lew and Wenger cannot be properly combined to teach the first brace bar, the second brace bar, and the

pickoffs as claimed in amended claim 1. When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references (*see, In re Geiger*, 815 F.2d 686, 688 (Fed. Cir. 1987)).

Lew does not teach connecting the conduits (44,45) with brace bars and does not suggest using brace bars. Wenger does teach connecting flow tubes (11,12) with brace bars (32,33) (FIGS. 1-2; column 4, lines 13-44). Thus, there must be some motivation to combine the brace bars in Wenger with the flowmeter in Lew. Lew teaches using differential pressure sensors (50,51) on the conduits (44,45) to measure pressure in the flow tubes (FIG. 5, column 11, lines 6-55). To measure pressure, the flowmeter in Lew does not need brace bars to separate vibration nodes of the conduits (44,45). Conversely, the flowmeter in Wenger measures vibration of the flowtubes using vibration sensors, and uses brace bars to separate the vibration nodes. Adding the brace bars from Wenger to the flowmeter in Lew would not improve the performance of the flowmeter in Lew, because Lew is measuring pressure instead of vibration. Because there would be no advantage to add the brace bars to the flowmeter in Lew, there would be no motivation to combine the teaching of Lew with the teaching of Wenger. The Applicants ask the Examiner to describe what would be achieved by combining Lew and Wenger? Why would one want to combine Lew and Wenger?

Also, Lew does not teach pickoffs affixed to a semicircular arc of the first flow tube and to a semicircular arc of the second flow tube that detect Coriolis force as claimed in amended claim 1. Lew teaches affixing pressure sensors to a curved portion of the conduit, but does not suggest using pickoffs to measure Coriolis force (see column 11, lines 6-55). Similarly, Wenger does not teach pickoffs affixed to a semicircular arc of the first flow tube and to a semicircular arc of the second flow tube that detect Coriolis force as claimed in amended claim 1. Wenger teaches using sensors (17,18) to measure vibration of the flow tube, but does not suggest affixing the sensors to a curved portion of the flow tubes. In fact, Wenger teaches affixing the sensors to a straight portion of the flow tubes (FIGS. 1-2; column 5, lines 3-5). Thus, there must be some motivation to combine the vibration sensors in Wenger with the curved conduits in Lew. Any electronics connected to the flowmeter in Lew will be expecting a pressure measurement in order to determine a mass flow rate. There would be no advantage to using vibration sensors. There is no suggestion or motivation in Lew to affix vibration sensors to the conduits (44,45). And, Wenger specifically states that the vibration sensors be affixed to a straight portion of the flow tubes (FIGS. 1-2; column 5,

lines 3-5). Consequently, there is no motivation to combine the teaching of Lew with the teaching of Wenger. Once again, the Applicants ask the Examiner to describe what would be achieved by combining Lew and Wenger? Why would one want to combine Lew and Wenger?

Also, amended claim 1 states that the pickoffs are positioned to detect the greatest amount of Coriolis force at low amplitude vibration. Lew does not teach using pickoffs to measure Coriolis force, so Lew could not teach were to position a pickoff. Wenger does not specify where the sensors (17,18) should be positioned on flow tubes (11,12).

In traversing the §103 rejection, the Applicants secondly submit that neither of the references teach a first flow tube forming a semicircular arc between an inlet end and outlet end, nor a second flow tube forming a semicircular arc between an inlet end and outlet end. The structure taught in Lew shows the conduits (44,45) having a common inlet leg (46) and a common outlet leg (47). The conduits (44,45) do not form a semicircular arc between the common inlet leg (46) and the common outlet leg (47). Between the common inlet leg (46) and the common outlet leg (47), the conduits (44,45) begin straight on a plane, have three bends, and return to a straight shape on the same plane as they began (see FIG. 5). Thus, Lew does not teach the flow tube structure claimed in amended claim 1. Wenger teaches flow tubes (11,12) having straight portions (111,112), so Wenger cannot teach the structure claimed in amended claim 1 (*see* FIGS. 1-2; column 3, line 66 to column 4, line 12).

Conclusion

Based on the above arguments, the Applicants submit that claim 1 is allowable over Lew and Wenger. Claims 2-11 are allowable as being dependent on claim 1. The Applicants respectfully request allowance of claims 1-11.

There may be other arguments that the Applicants could make, but at this time the Applicants rely on the above arguments to prove allowability.

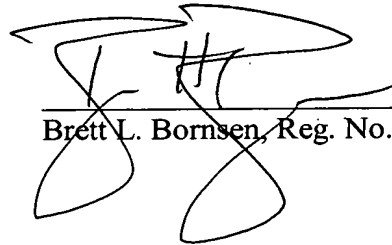
The Applicants believe that no fees are due. However, any additional fees may be charged to deposit account 03-1725.

Respectfully submitted,

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